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ABSTRACT

This paper describes a family planning service for adolescent males in an inner-city area. The program utilized the distribution of free condoms through local commercial outlets (barber shops, grocery stores, pool hall, restaurant). The proprietors agreed to distribute condoms in the target area which included approximately 3,000 males aged 12-26 years old. In a 13 week feasibility test, over 18,000 condoms were distributed. Results indicated that the number using a condom with their last coitus increased markedly. Conclusions drawn included: (1) that the condom is an acceptable contraceptive, especially for adolescent males; (2) that inner-city adolescent men do wish to prevent unwanted births; and (3) that commercial outlets are effective free distribution centers. (TL)

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A CONDOM DISTRIBUTION PROGRAM FOR ADOLESCENTS: THE FINDINGS OF A FEASIBILITY STUDY

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CG 006 148

ABSTRACT

This paper describes and evaluates the feasibility of a family planning service for adolescent men in an inner-city area. The program utilized the widespread distribution of free condoms through commercial outlets. The proprietors of nine retail sites (5 barber shops, 2 grocery stores, 1 pool hall, and 1 restaurant) agreed to distribute condoms (to a maximum of 12 per recipient) adhering to certain practices regarding frequency and number given and age of recipients.

The target area included approximately 3,000 males aged 12 to 26 years in 4 census tracts (1966 U.S. Special Census). In a 13 week feasibility test over 18,000 condoms were distributed through the nine sites.

During the test period those recipients who had used a condom within the past week increased from 19% to 68%; those who used a condom with their last coitus increased from 20% to 91%.

Two conclusions are drawn: (1) condoms are acceptable to adolescents in a magnitude not previously appreciated; (2) adolescent males will accept a sizeable share of the burden in pregnancy prevention if given the opportunity.

INTRODUCTION

Family planning services directed toward adolescents are not new. Over the past five years several projects in the United States have published findings about pilot projects serving adolescent women, (some reports detailing programs directed toward never-pregnant young women, others at those once-pregnant. Except for the project reported by Gobble, etal (1969), adolescent males, however, have been virtually neglected by family planning programs.

This paper reports the findings of a condom distribution program for inner-city adolescent males, a group generally believed to be "hard to reach" and in some cases militantly opposed to "birth control" in any form. Empirical findings of the type contained in this paper have not previously been reported. We believe study's results indicate that inner-city adolescents from low income families are willing to assume a major share of the responsibility for preventing unwanted births, if they are given the chance to do so. Our paper describes the means by which that opportunity was extended and the adolescents subsequent response.

The condom distribution project was part of a larger storefront type adolescent family planning program directed toward young men and women. The overall program began operation in January 1969 in an inner-city area of an eastern United States Standard Metropolitan Statistical Area. A special U.S. Census had been taken in 1966 which defined the target population as approximately 3,000 males between the ages of 12-24 years residing in four contiguous tracts. The physical and social setting of the inner-city area was such that it was virtually geographically and socially isolated from the greater urban community. The staff during the majority of the program consisted of a field director, a secretary, as well as three females and one male outreach workers, residents of the project area or nearby. (At the project's outset, the mean age of the outreach workers was slightly less than 20 years). At the outset a reasonably precise definition of the size of the adolescent community was needed so that services and sex information sessions could be appropriately directed. From data gathered at sex information sessions an ad hoc behavioral definition of adolescence was developed; i.e., those who attended sessions were by definition (i.e., "self-selection"): the target adolescent population. For males, the groups age range was 12-24 years (90% of participants fell into that range). For women, it was 12-17 years.[1]

[1]We attribute the limited participation by age of adolescent women to the prevalent high pregnancy rates in this inner-city area and the consequent inability of that group to maintain its cohesiveness. (In a 1967 survey (Arnold, et al) it was found in this same population that by age 20: 43% of women had been pregnant; and 73% of those pregnancies came "sooner than the woman wanted".) Participation stemmed primarily from informal communications, a fragmented group; viz, the young women, would be functionally excluded.

THE CONDOM PROJECT

The condom's importance for adolescent family planning services lies in the fact it does not require a prescription or a medical examination and is very inexpensive. Because most adolescents have limited resources, and inner-city youths are especially hard hit, "cost" and ease of access are two major considerations. This program attempted to meet both issues.

In May 1969 based on experience by Kangas (1969) and Gobble, etal (1969), free condoms were made available through the adolescent family planning office and through a summer youth program located in the building next door. During the following six months approximately 1,200 condoms were distributed. Each young man receiving a condom was asked to give his name, address, and number of condoms taken. (During this period the adolescent outreach workers were female). There was no apparent hesitation by the young men to come in to our office, request, and receive condoms from these young women. (Comparable to the experiences reported by Gobble and his coworkers). In December 1969 a male outreach worker joined our staff and began to distribute condoms from sites other than the office in the adjacent building[1]. Because of the Kangas experience using commercial outlets (as originally proposed by Peter King (1966) and the Indian Institute of Management; 1965), we approached two small grocery stores and a barber shop in January 1970 to ask their proprietors if they would distribute condoms free to young men when they entered their establishment. The proprietors agreed, but seemed mildly dubious. We observed the distribution over a three-month period. During that time the shops made the condoms available as requested. No difficulties were encountered. The number of condoms that were distributed increased weekly. The owners became increasingly comfortable with their role and the use of their shops as distribution points.

One member of the project staff, a 20 year old young man was primarily responsible for condom distribution. He located the shops, explained the details of participation to the shopkeepers, maintained the distribution network much as any salesman or "detail man" might do for a commercial program. He learned the idiosyncracies of the various sites, for example one place invariably exhausted its condom supply on the weekends necessitating a call on Friday afternoons and a stockpiling for the upcoming weekend. He observed a variety of patterns of condom distribution practices, for example one shopkeeper put up a large sign saying "Free" above a box of condoms; others would be less demonstrative, one or two would keep them under the counter and not visible to the casual observer. In all, the effectiveness of this program can be primarily attributed to the energy and resourcefulness of our condom distributor.

An expansion of the use of commercial sites for the distribution of free condoms was made in March 1970. Six additional sites were located within the inner-city area. The nine sites included 5 barber shops, 2 grocery stores, a pool hall, and a restaurant. Similarly the proprietors of the new sites agreed

[1]The female outreach workers were comfortable dispensing condoms from the project office, but they deemed it imprudent to distribute them elsewhere, such as recreation areas, shops, stores, etc.

to distribute the condoms free of charge to young men, to attempt to determine the seriousness of their request for condoms (attempting to omit trivial uses of them), and to restrict the maximum number at a time to twelve per person. In order to determine the feasibility of the commercial sites utility for free condom distribution an evaluation protocol was developed which is described below.

PROGRAM EVALUATION

In order to evaluate the condom distribution program a prospective, action-research type evaluation model was employed. A stratified random sample of distribution sites within three regions of the inner-city was developed. The stratification was by week (a 13 week study was utilized), by region of the inner-city area, and by day of the week. Time and space were sampled so that approximately 1/12 of all time-space was randomly selected; in other words we have about an 8% random sample. We assumed for research purposes that there would be a differential rate of distribution by day of week. In our sample the weeks were divided into four sampling units: all day Saturday, all day Friday, Monday and Tuesday, Wednesday and Thursday. Because it was further assumed that the afternoons of weekdays would be utilized more extensively than the mornings, the Monday-Tuesday and Wednesday-Thursday sampling units were sub-divided into periods "before school let out (2:30 p.m.)" and "after school (after 2:30 p.m.)". These assumptions were testable and are discussed in the "findings" section.

Because of the personally and socially sensitive nature of the research problem, we expected and received difficulties when attempting to uniquely identify the subjects participating in the study. Whereas we had encountered little difficulty in registering recipients of free condoms in our office, (a place where we were known and trusted), the young man in the nine sites would not provide their names and addresses, thereby making it impossible to uniquely identify them. In all likelihood the sample includes individuals who have received condoms on more than one occasion, however, we do not have a precise estimate of that proportion. Because the study focus is on the adolescent male condom user, his practices, and beliefs, we believe the data are perfectly adequate for providing estimates of project feasibility. The inferences possible from such data are, accordingly, limited to those derived from simple descriptive statistical procedures.

In accordance with the sampling design described above, a member of the project staff (a young male) was present at the designated location for that day, time of day, and requested the condom recipients to complete a brief (8 item) self-administered questionnaire. The items pertained to the recipients age, the number of blocks they lived from the distribution site, the last time they used a condom, age at first use of a condom, whether or not the condom was used with last coitus, whether or not the girl was using contraception at the time of coitus, the reasons for using a condom, and whether they planned to tell friends about the free condom distribution. The instrument was pretested for approximately 10 days prior to its final revision for the feasibility study. The pretests were concluded in the target area using a selected number of shops and stores participating in the program.

Data collection was effected by the young male outreach worker. He approached each condom recipient at the designated site with the self-administered questionnaire, asking for the cooperation in the projects evaluation. The rate of completion was approximately 95 percent. The data were collated on a weekly basis, identified with regard to site, time, and day of week, then held for future data processing. Subsequently, they were coded, keypunched on IBM cards, and analyzed by the use of the IBM 360 Model 60 computer at the Triangle University's Computation Center through the use of the telestorage and retrieval system (TSAR).

The Problem of Reliability and Validity

An attempt was made to determine the reliability of the data through the use of a companion brief instrument handed to each condom recipient at the time he completed the schedule described above. Only two items of information were requested: (1) the recipient's age, and (2) the number of condoms he had just taken. Age would be checked against that age given on the other schedule and the "number of condoms" checked against our gross distribution inventories kept as a regular part of the project's operation. Interestingly, we encountered great reluctance initially by the young men to complete this apparently innocuous two-question form. No satisfactory social or psychological explanation has been advanced to account for their hesitation. Those brief completed schedules have provided an estimate of condoms taken which is approximately 50 percent greater than our actual distribution. Presently we lean toward accepting the explanation that young men exaggerated the number of condoms taken or the sample was biased in that the higher users completed our questionnaire. This probably accounts for the discrepancy. The data were gathered within the space of two minutes following their receipt of the condoms (sought voluntarily), perhaps the presence of companions observing the data collection provoked the overestimation as a "machismo" reaction. One might expect ones peers to provide a reliability check especially, if they were present when the condoms were received and questionnaire completed. The actual questionnaire, however, was small, the shops not particularly well lighted, and attempts were made to preserve the confidentiality of the respondents. These factors may have offset any possible reliability-inducing element by companions.

In addition to reliability, the validity of the questions and the responses poses the important research issue because of the sensitive nature of the subject matter and the limited empirical research in this area. The data collected in the study are corroborated by clinical impressions reported by the field staff, as well as data gathered in the sex information sessions, and other small group discussions with adolescents in the previous year and a half. The question of non-use of condoms and/or possible non-contraceptive uses (trivial uses) has been investigated to a limited extent and discussed by the field staff. They believe only a negligible proportion were taken for these reasons. Our community surveillance (which we believe to be good) provided no evidence to contradict the staff's impression. A study is planned for the near future explicitly to test the relationship of condom distribution to condom use and sex behavior in this population. The findings from this later inquiry will be reported in a subsequent paper.

FINDINGS

Findings in this study will be reported in two parts, first, those data concerned with program feasibility and secondly, those data pertaining to condom use.

The Program

Table I describes the distribution of condom recipients during the thirteen-week test period at the nine sites. Columns 3 and 4 indicate the variation in percent by week, and cumulative percent of the recipients during the test period. On the average 7.6 percent of the sample entered each week.

In addition to those condoms distributed by the nine sites the project office continued its distribution and the young male outreach worker distributed condoms from his car during the test period as well. The mean condom distribution in the area was 1584 condoms per week (standard deviation = 547). The mean number of condoms recipients per shop each day was 7.6 (standard deviation = 2.5). There were five barber shops, two markets, one restaurant, and one pool hall among the commercial distribution sites. The data do not indicate a preference shown by young men for any particular kind of distribution place. The site with the lowest daily average was a market run by a man and wife; during the early weeks of the program the wife refused to distribute condoms; the husband worked only part time. Later she recanted and their distribution volume increased considerably. A second site with low distribution was a barber shop dependent on school boy trade which was closed sporadically during the course of the test because of the school summer vacation.

Figure 1 provides the distribution pattern of condom recipients by time of day and day of week. These data also tested the assumption described above regarding the pattern of weekday distribution. They clearly refute the assumption that Fridays and Saturdays would be preferred times for condom distribution. The data indicate that mean distribution for the Monday-Tuesday and Wednesday-Thursday combinations are approximately double those for Friday and Saturday, thereby constituting a surprising result.

Figure 2 describes the number of blocks condom recipients lived from the various distribution sites. Eighty percent of the recipients lived within six blocks of the various distribution points. Almost half lived within three blocks from the participating shops. This finding is comparable to that reported by Ten Have from the Detroit Area Studies in that persons tend to go relatively short distances for family planning services.

Characteristics of Condom Recipients

The age range of the recipients was from 12 to 40 years with a mean of 18.6 (standard deviation = 3.4), a mode of 17 and a median of 17.5. Ninety percent of the condom recipients were 24 years of age or younger.

We were also interested in learning at which age the recipients first used a condom. Their self-reported mean age at first use was 14.9 (standard deviation = 1.35); the median age was 13.8. The range was from 12 to 30 years. There was a small, but noticeable preference for even numbered years in their recall. Fourteen percent gave no response to this question.

Figure 3 describes the condom recipients over the thirteen week test period by two measures sampled each week: (1) those who had used a condom within the past week; and (2) those who had never used a condom. Whereas in the first week there was a twofold difference between the two groups, this proportion was quickly reversed in the ensuing weeks. After week 4, approximately 60 percent of recipients said they had used a condom in the past week.

Figure 4 describes the percentage of recipients who had used a condom with their last coitus during the test period. Showing a steady increase over the thirteen weeks. In week 13, 91 percent of recipients said they had used a condom with their last coitus.

We were interested in the use of contraception by the sexual partners of the condom recipients. We asked this question: "The last time you had sexual intercourse was the girl using some kind of protection?" Only 16 percent of respondents answered positively. The proportion remained about that level throughout the test period.

Figure 5 indicates the expressed reasons for condom use as reported by the recipients during the course of the thirteen weeks. Venereal disease protection and contraception were almost equally represented as reasons by the respondents. Approximately one-fifth and one-quarter of the respondents respectively, indicated that their choice was influenced by other boys, or by girls.

DISCUSSION

This feasibility study was even more successful than we had anticipated. As such we believe the acceptability of the condom for adolescent populations is clearly established. We believe this to be especially true in that the data suggest the increasing saturation of the areas served, i.e., a group of condom users seemed to be emerging.

Two principal objectives were sought in this program: (1) determination of the feasibility of the project plan; and (2) the reported utilization by the recipients. Data indicate that the project's use of commercial outlets (barber shops, grocery stores, pool hall, and a restaurant) worked well and was acceptable both to proprietors and recipients. The volume of condoms distributed each week increased over the course of the thirteen-week test, representing approximately one condom distributed per week for every two adolescent males in the target area. The recipients lived relatively short distances from the distribution sites utilized in the project; suggesting that wide dispersal of participating commercial outlets would be necessary in order to gain maximum participation.

The average (mean) number of persons per day appearing in the commercial outlets was 7.6. This number becomes important for persons planning to replicate this program model. From our experience one could provide reasonable assurance to shopkeepers of a steady level of recipients, but that they would not be deluged. While there was variation between the shops there was no consistent pattern present by type of shop. It would appear that the choice of distribution site by condom recipients was based upon factors other than the type of shop; viz., need for haircuts, need for a six-pack of beer, accompanying a friend for a sandwich, etc.

One of the assumptions tested in the evaluation design concerned the distribution of condom recipients during the week and by time of day. We are unable to explain the preference by recipients for weekdays rather than weekend times. The consistency of the data suggest an underlying rationale not understood at present. While school summer vacation began approximately half way through the 13 weeks, the weekday/weekend differential was not affected by this change.

The recipients were predominantly a later-adolescent group, with approximately one-third in their early twenties. They began to develop the characteristics of a consumer group during the course of the sixteen-week period.:

(1) there were an increasing number of recipients who indicated condom use during the past week;

(2) a decreasing number each week fell into the "never used" category;

(3) occasional weekly increases occurred in the "never used" group during the thirteen-week period, suggesting a sporadic influxes of new users.

The proportion of recipients who used a condom with their last coitus increased steadily during the 13 weeks; by the sixth week half indicated such use, by the ninth week over three-fourths were in that category. Assuming maintenance of this utilization pattern, we predict adolescent fertility changes in the target area in the next year.

One datum important for present-day family planning programs concerns the virtually unprotected state of the condom recipients' sex partners (16 percent used contraception with last coitus). Two-thirds of the recipients indicated, however, that the prevention of an unwanted birth was a contributing reason for their condom use. Among this group, the burden for family planning was apparently unequally divided between the recipients and their girl friends.

The question exists whether this program instigated condom use or promoted users to switch from a commercial to a free source; the data indicated both factors were operating; i.e., 62 percent of our participants (Figure 3: week 1, 100 percent less 38 percent who "never used" a condom before),

had used a condom previously. By comparing the age at first use and present age data, the "average" recipient started using condoms 3.8 years previously. There was additional indication from the "never used" responses over the thirteen weeks that new users entered our study population as well. Most recipients were familiar with the condom already, however.

We estimate approximately 4200 condom recipients were represented in our nine sites distribution program over the thirteen-week period. Additional condoms were distributed elsewhere in the area making our overall estimated population of recipients in the community to be 5600[1].

One final problem, an essential one, concerns the effectiveness of this condom distribution project. That is, what proportion of the target population (approximately 3000 males 12-24 years) were reached. Because this study was unable to uniquely identify individual recipients, one must make certain assumptions about frequency of coitus, proportion of coitus protected by condoms,and the length of individual participation in our free distribution scheme. These assumptions are so fundamental that one must view estimates somewhat skeptically that are based upon them. Two methods of estimation were employed; one method utilized our data on condoms distributed per recipient, the other method was based upon the proportion of coitus protected by a condom. (See Appendix A for a detailed presentation of the methodology and assumptions). The condom-use method provided a conservative estimate of the proportion of the target population reached: 25 percent. The protected-coitus method provided a liberal estimate: 50 percent reached. If one accepts the lower estimate, it nevertheless remains an impressive proportion given the short duration of the project (13 weeks).

CONCLUSIONS

Three principal conclusions are derived from the condom distribution program for adolescents.

1. Acceptability. Contrary to many opinions previously stated within the United States family planning movement, the condom is an acceptable contraceptive, especially for adolescent males.

2. The male role in family planning. Inner-city adolescent men, also contrary to many present-day stereotypes, wish to prevent unwanted births, over two-thirds of our recipients indicated that reason for their condom use.

[1]The estimated additional 1400 recipients were derived using interpolation as follows: the nine sites used 18,000 condoms for 4200 recipients; the overall distribution was 23,000 in the thirteen weeks, ergo, there were an estimated 5600 total recipients.

We infer from this datum that young men are willing to assume a sizeable share of responsibility for family planning. Accordingly, we believe family planning programs should begin to include condom distribution among their services. We have provided and tested one organizational model, others, of course, could be developed as well.

3. Commercial outlets. We strongly recommend that other programs identify and gain participation as condom distribution points those small commercial places as barber shops, grocery stores, gas stations, and the like.

4. Further research. Additional investigation needs to be undertaken in order to replicate this program model and determine the limitations, if any, for its general use in family planning.

APPENDIX A

ESTIMATION OF THE PROPORTION OF TARGET POPULATION REACHED

Method I

(1) From the study data we know that the mean number of condoms received were 9.1; the projection of this figure to the entire population provided a total distribution that was 100 percent in excess of the observed. For estimation purposes 4.6 condoms per recipient visit will be used.

(2) 4.6 condoms per visit x 1 visit per week per person (assumed) x 13 weeks = 60 condoms per person over the 13 week study period.

(3) If we assume the average person participated 6.5 weeks then he received only 30 condoms.

(4) 23,000 condoms ÷ 30 condoms per person = 760 persons.

(5) 760 ÷ 3000 is approximately 25 percent proportion reached.

Method II

(1) If one assumes mean coital frequency in this population to be 2.5 per week over 13 weeks, and that 50% of coitus was protected by condoms (from study data) then:

13 weeks x 2.5 coitus per week x 0.50 condoms per coitus per person = 15 condoms per person.

(2) 23,000 condoms ÷ 15 condoms per person = 1520 persons.

(3) 1520 ÷ 3000 is approximately 50 percent proportion reached.

Discussion

Both methods are inherently troublesome because of problems with the assumptions made. Method II is probably the superior in that it makes fewer assumptions. The 2.5 mean coitus per week estimate is derived from clinical data, though not epidemiological, they are empirically derived. If one averages the two results approximately 1/3 of the target population were reached in thirteen weeks.

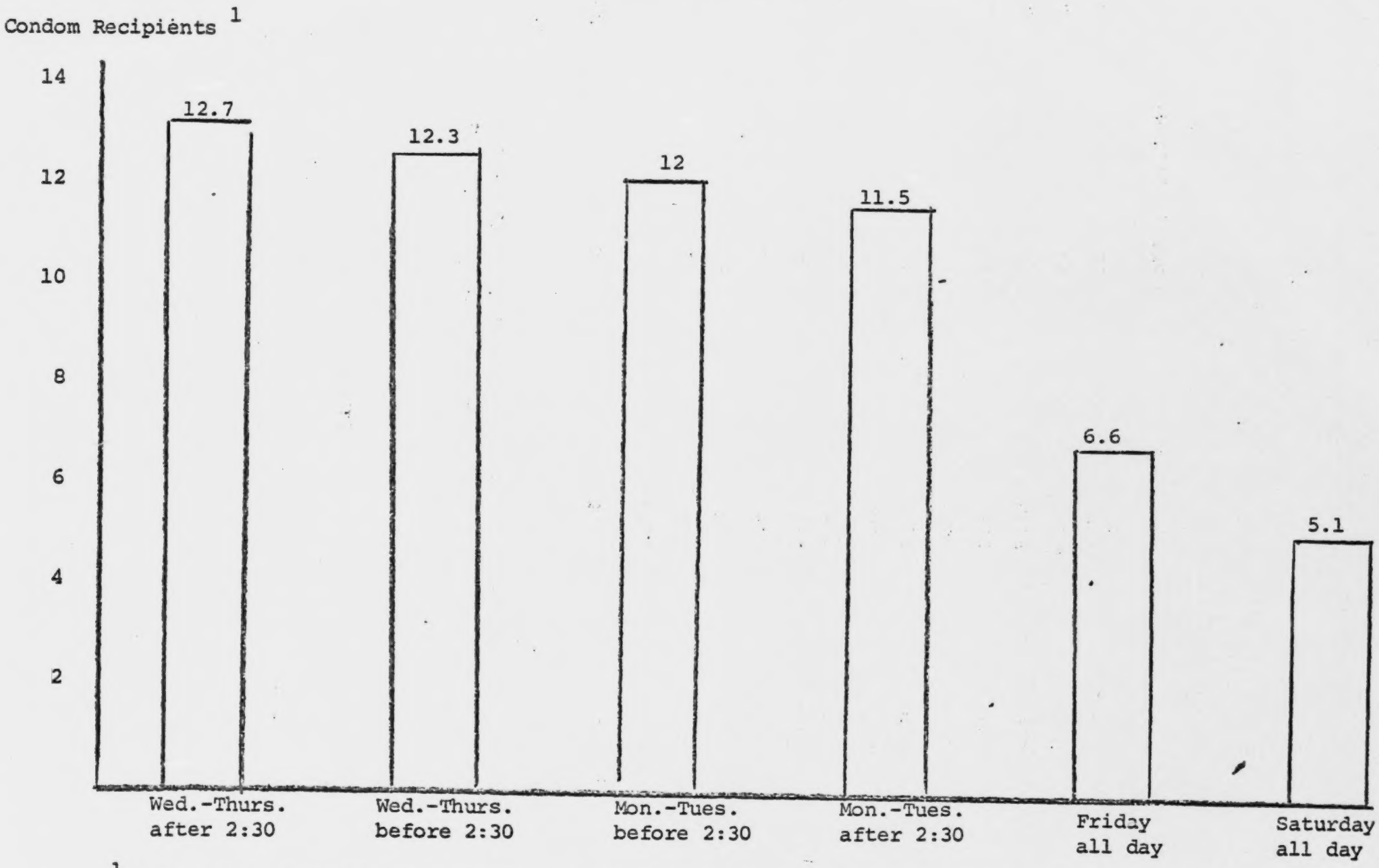
TABLE 1

Distribution of the sample of Condom Recipients
During the 13 Week Test Period, 9 Sites (1970)

Week	N	%	Cumulative %
1	37	10.7	10.7
2	13	3.7	14.4
3	25	7.2	21.6
4	17	4.9	26.5
5	21	6.1	32.6
6	26	7.5	40.1
7	36	10.4	50.5
8	33	9.5	60.0
9	30	8.6	68.6
10	29	8.4	77.0
11	41	11.8	88.8
12	14	4.0	92.8
13	25	7.2	100.0
Total...	374	7.6	-

FIGURE 1

Distribution Pattern of Condom Recipients
By Time of Day, Day of Week
(Nine Sites, 1970)

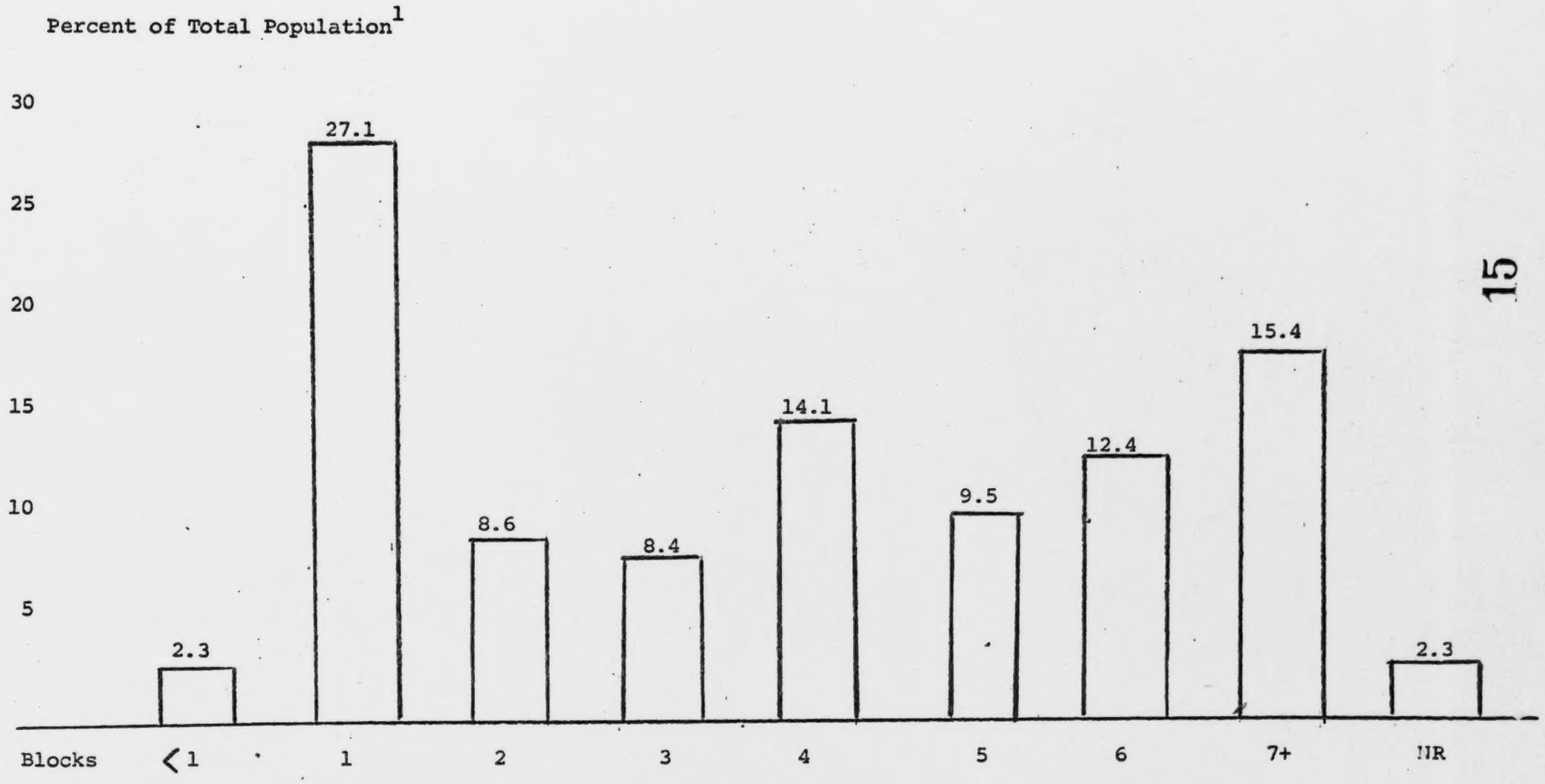


[1] These data adjusted for sampling variation (among the days of week, times of day) in order to make the comparison.

N = 347 condom recipients.

FIGURE 2

Number Blocks Condom Recipients Lived From Distribution Site
Nine Sites, 1970



N = 347 Condom Recipients
NR = No Response

FIGURE 3

Regression Line About Percent Recipients Who (1) Used a Condom the Past Week, Or (2) Never Previously Used A Condom by Week Nine Sites (1970)

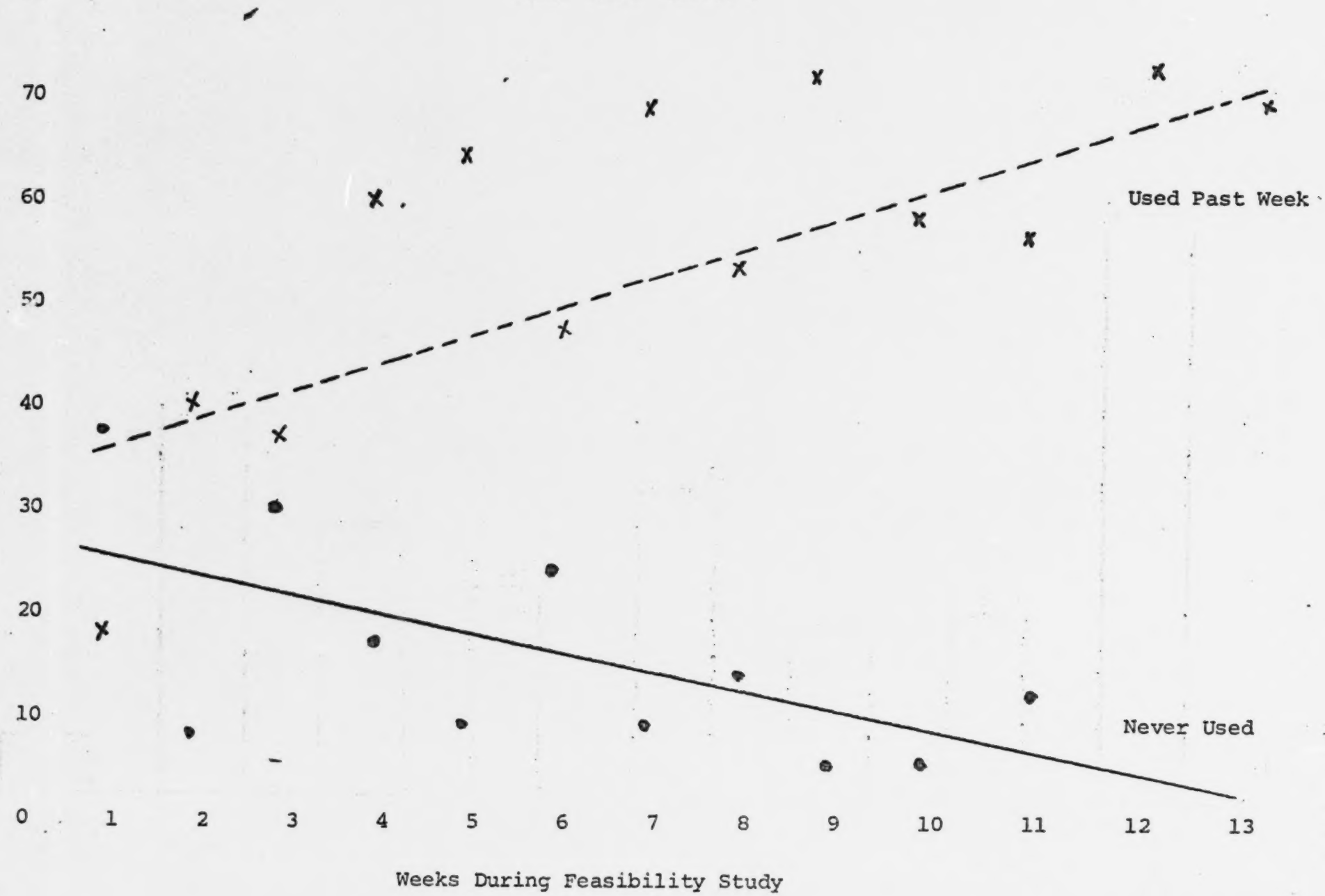


FIGURE 4

Regression Line About Percent Recipients in Past Week Using Condom With Last Coitus
Nine Sites (1970)

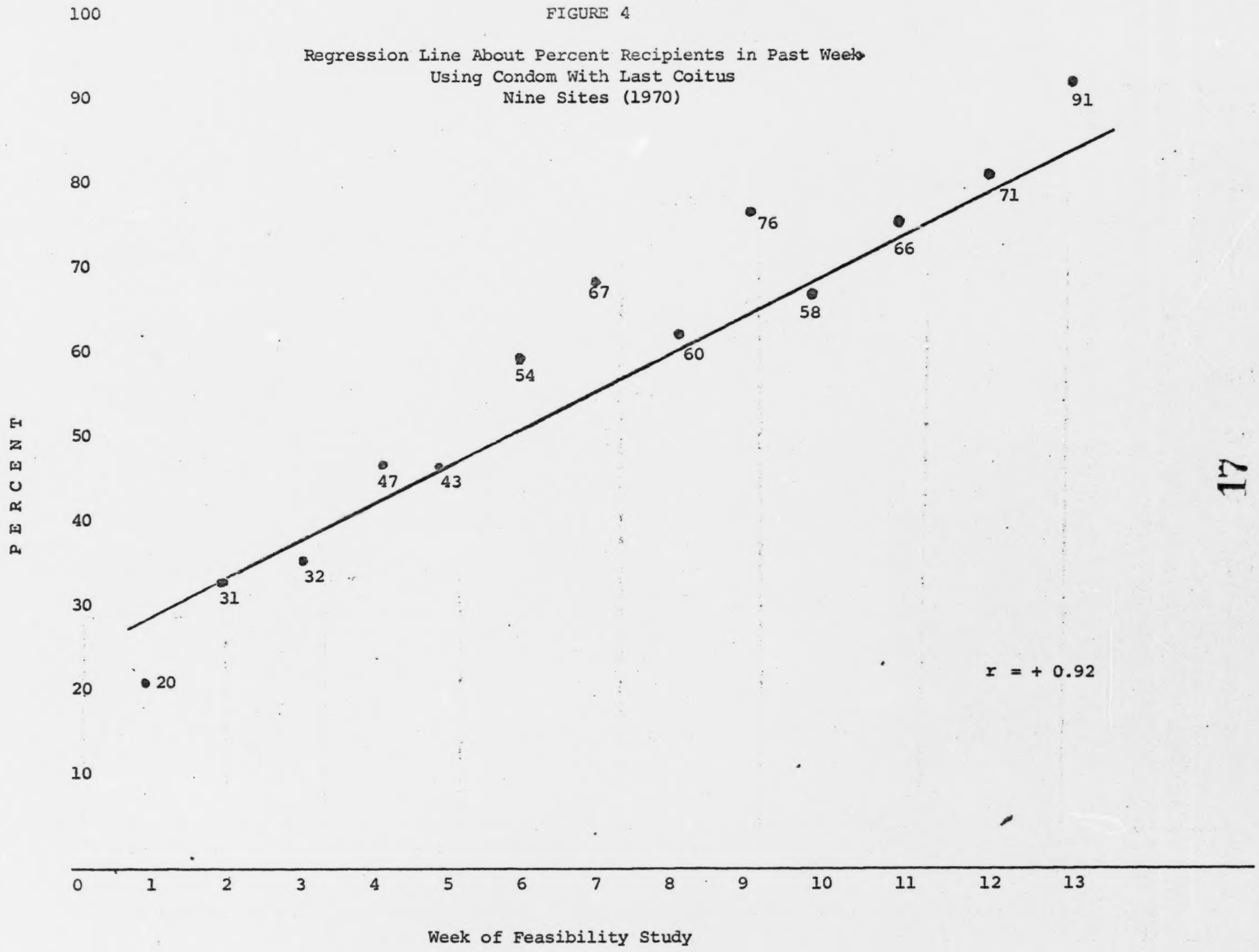
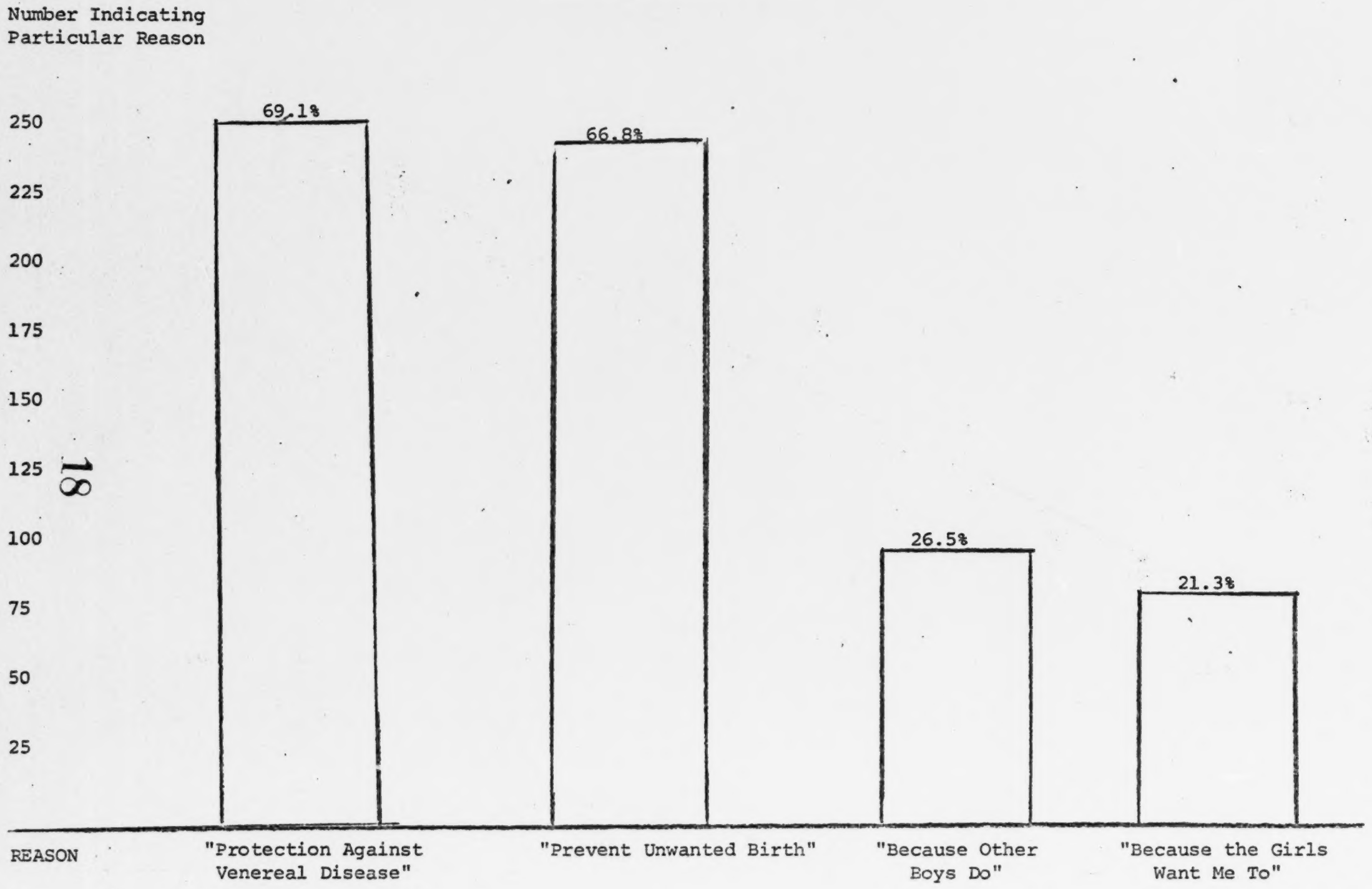


FIGURE 5

Reasons for Condom Use Reported by Recipients[1]
Nine Sites, 1970



[1] The 347 recipients in this sample gave a total of 639 responses in these 4 categories. The percentages represent that proportion of the 347 giving the particular response, thereby exceeding 100%.

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